

**TECHNICAL REVIEW DOCUMENT**  
**for**  
**MAJOR MODIFICATION OF**  
**OPERATING PERMIT 95OPEP147**

issued to:

US Air Force  
**Peterson Air Force Base**  
El Paso County  
Source ID 0410016

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This document establishes the basis for decisions made regarding the Applicable Requirements, Emission Factors, Monitoring Plan and Compliance Status of Emission Units covered within the modification proposed for the Operating Permit for this site. It is designed for reference during review of the proposed modification of the permit by the EPA and during Public Comment. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

On the effective date of the Title V program the existing information indicated the potential emissions from Peterson Air Force Base (PAFB) would require the Base to obtain an Operating Permit. Information compiled for the Title V permit application identified the initial emissions estimate was based on a large number of active Construction Permits for sources that no longer existed, and additional modifications programmed would remove several more sources. The compilation demonstrated that PAFB could modify their Construction Permits to establish Federally enforceable emission limits at a level that would not require an Operating Permit. In other words, PAFB could become a synthetic minor source for the Title V program. At the same time, PAFB was evaluating the impacts of potential changes in their operating missions. PAFB believed obtaining a Title V permit would provide more flexibility to make future adjustments that might be necessary to accomplish new or modified mission requirements.

At the time the Title V application was being prepared, the initial provisions of a program to control the emissions of hazardous air pollutants (HAPs) from the aerospace industry became effective. These provisions are commonly known as the Aerospace MACT (Maximum Achievable Control Technology) standards. One of the Base tenants (Air National Guard) conducted a very limited operation involving component cleaning that was subject to a segment of the MACT provisions. PAFB had the options to request Federally enforceable limits that would exempt them from the MACT provisions, begin the initial steps for compliance with the MACT provisions, or work with the tenant to stop the activity. PAFB believed compliance with the MACT provisions maintained the maximum flexibility they desired to satisfy potential future mission requirements. Consequently, PAFB submitted the necessary documents to EPA to identify PAFB as subject to the Aerospace MACT provisions.

The Title V application submitted by PAFB was received by the Division on February 23, 1996. Subsequently, a Title V Operating Permit was issued on March 3, 1998. The Title V permit incorporated the Aerospace MACT as an applicable requirement.

On July 31, 1998, PAFB submitted a request to modify the Title V permit to limit the Base-wide HAP emissions to below the major source thresholds of 10 and 25 tons per year. Regulation No. 3, Part A, Section I.36.h.viii requires the significant modification procedure be followed for a modification requesting a change that seeks to establish or change a permit term or condition to avoid an applicable requirement to which the source would otherwise be subject. In this case, PAFB was requesting a Federally enforceable Base-wide cap for HAPs to avoid the applicable requirements of the Aerospace MACT. The Significant Modification procedures require the modification application to be reviewed for completeness, the permit modified, a 30-day Public Comment review, and a 45 day EPA review. The earliest date for issuing the modified permit would have been approximately October 12, 1998. The first compliance date for the Aerospace MACT was September 1, 1998. EPA had ruled that to avoid the MACT provisions a source had to be subject to Federally enforceable permit limits less than the MACT thresholds prior to the first compliance date of a MACT. Further, once subject to the MACT, the source would always be subject to the MACT.

PAFB was informed of the complication. They reviewed the situation and believed they qualified as a true minor source for the MACT based on an EPA January 25, 1995, transition guidance memorandum. The guidance indicated how regulatory agencies might proceed to provide eligible sources with Federally enforceable permit limits in time to avoid the MACT provisions to be developed under Section 112 of the Clean Air Act. The transition policy established in the January 25, 1995, memorandum was extended by additional memorandums dated August 27, 1996, and July 10, 1998. The transition policy is currently in effect until December 31, 1999.

For the Aerospace MACT, a source is subject to the provisions if the potential HAPs emissions exceed 10 tons per year for any single HAP, or 25 tons per year for any combination of HAP emissions. EPA's guidance noted there would be little benefit in making small sources subject to the MACT provisions. EPA defined these small sources as those that maintained records to prove that the actual HAP emissions for each calendar year, starting January 1, 1994, did not exceed 50 percent of the major stationary source threshold for the source. This definition set values of 5.0 tons per year for a single HAP and 12.5 tons per year for total HAPs as the 50% limits for the Aerospace MACT. If the emission records were maintained and available for review, the source would not be treated as a major source and would not be required to obtain a synthetic minor permit to limit their potential to emit.

PAFB submitted information to the Division which demonstrated they satisfied the '50%' guidance in the EPA memorandum. The EPA guidance would allow these records to qualify Peterson as a non-major source for the Aerospace MACT, and not subject to the MACT provisions. Although

the EPA guidance has no force in law in Colorado the Division agrees with EPA that little, if any, environmental benefit would be achieved by subjecting such a small source to the MACT requirements. In addition, after further review of PAFB's emission inventory and operations, the Division accepts PAFB is a true minor source of hazardous air pollutant emissions as long as they maintain the records to annually demonstrate their hazardous air pollutant potential to emit remains below the major source threshold.

Regulation No. 3 requires estimated actual annual emissions of hazardous air pollutants above defined thresholds be reported for annual fee assessment. Any increase in emissions for a year must be reported to the Division by April 30 of the following year. The preparation of the emission inventory for the HAPs reporting would allow PAFB to calculate their potential to emit and evaluate their status for the previous year. The evaluation would allow them to certify that they were still a minor source for hazardous air pollution emissions. The requirement for this annual certification was included in the permit modification. The calendar year basis for the existing Title V permit reporting periods and dates created difficulty for the certification. The periods and dates were adjusted to allow PAFB time to complete the emission inventory, evaluate the information and perform the certification.

Section I, Condition 5.6, which reflected the provisions of the Aerospace MACT, was removed from the permit. To eliminate any future uncertainty, the permit shield from the Aerospace MACT was granted based on the PAFB status as a true minor source.

The emission inventory for Calendar Year 1998 was completed in April, 1999. The inventory identified one new significant source, a 10,000 gallon aviation fuel tank at Building 140. The estimated emissions from this source are sufficient to require reporting the emissions in accordance with the provisions for APEN reporting, but do not require a Construction Permit. The Operating Permit has been modified to incorporate this new source.

After completion of the 1998 emission inventory, PAFB reviewed the actual uncontrolled emissions from their sources for recent years. The emission levels are small and well below the APEN reporting threshold. PAFB believes the low levels of actual uncontrolled emission justified classification of the Isodock Shop, Flightline Maintenance, Structural Repair Shop and Jet Engine Testing as insignificant sources. Further, the Title V Operating Permit should be modified to identify these sources as insignificant. After review and discussion, the Division accepts the PAFB request, and has modified the Operating Permit accordingly.

Section I, Condition 3, of the Title V permit issued stated was not subject to the Accidental Release Prevention Plan of Section 112 (r)(7) of the Clean Air Act. PAFB reported that fire training activities using propane would make them subject to the Section 112 (r) provisions. In the PAFB Public Notice comments submitted it was stated a recent EPA administrative stay exempting propane storage tanks up to 67,000 pounds removes the requirement to prepare the plan required. Condition 1.3 was modified to reflect this change.

During the preparation of this Technical Review Document, the previous Technical Review Document was reviewed for reference information. It was discovered that the tables displaying the Potential To Emit and the 1995 Actual Emissions on page 3 of the previous document contained errors. The table displaying the Potential To Emit values included values for the HAPs. The values displayed were a “worst case” estimate provided in the Title V application. PAFB had no expectations they would ever emit more than a fraction of these values, and the estimate represented a practical Potential To Emit. However, since PAFB had no permit limits for the HAP emissions, from a regulatory technical standpoint, the HAP Potential To Emit was not limited. The HAPs column should not have been included in the table. The same table is shown at the end of this document and now correctly shows the HAPs Potential To Emit as established by this permit modification.

The 1995 Actual Emissions table included an error due to a misunderstanding in the interpretation of corrections submitted by PAFB. The corrected table is also shown at the end of this document.

On April 16, 1998, the Colorado Air Quality Control Commission directed the Division to implement new procedures regarding the use of short term emission and production/throughput limits on Construction Permits. These procedures are being directly implemented in all Operating Permits that had not started their Public Comment period as of April 16, 1998. All short term emission and production/throughput limits that appeared in the Construction Permits associated with this facility that are not required by a specific State or Federal standard or by the above referenced Division procedures have been deleted and all annual emission and production/throughput limits converted to a rolling twelve (12) month total. Note that, if applicable, appropriate modeling to demonstrate compliance with the National Ambient Air Quality Standards was conducted as part of the Construction Permit processing procedures. If required by this permit, portable monitoring results and/or EPA reference test method results will be multiplied by 8760 hours for comparison to annual emission limits unless there is a specific condition in the permit restricting the hours of operation.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revisions, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised Construction Permit.

The Division used the opportunity of this permit modification to implement the new procedures and remove any short term emission and production/throughput limits established by previous

Construction Permits or that had been established directly in the Operating Permit. The table below documents the existing short term limits that were removed from the Operating Permit.

Construction Permit	Emission Point	NOx, lb/hr	CO, lb/hr	VOC, lb/day	Fuel Use or Process rate
95OPEP147	S028- Jet Engine Testing	6.77	23.52		
	S029 - Bldg 11360			164	14,000 gpd
	S030 - Bldg 1700			199	17,000 gpd

Additional changes have been made to incorporate language changes desired by EPA and to correct previous errors discovered in the permit.

After reviewing all of the modifications proposed for this Operating Permit the Division believes the modifications may be processed as a minor modification of the permit. The removal of the Aerospace MACT is being done as a correction of an error in the issued permit. The addition of the requirement for the annual certification of the status as a HAP source is not considered a significant change. Other changes made were to correct typographic errors, or upgrade standard wording in the document.

**CORRECTED POTENTIAL TO EMIT, TONS PER YEAR**

<b>Emission Source Group</b>	<b>PM<sub>10</sub></b>	<b>CO</b>	<b>NOX</b>	<b>SO<sub>2</sub></b>	<b>VOC</b>	<b>HAPS*</b>
Boilers, Furnaces, HW heaters	9.39	20.86	88.06	6.82	4.22	
Generators	2.49	11.24	51.65	2.33	3.07	
Engine Testing	0.03	1.02	0.21	0.22	0.66	
Storage Tanks					8.19	
Refueling					58.91	
Vehicle Maintenance	0.00	1.92	0.03	0.00	0.24	
Operational Shops					90.67	
<b>TOTALS</b>	<b>11.91</b>	<b>35.04</b>	<b>139.95</b>	<b>9.37</b>	<b>165.96</b>	<b>&lt; 10 &amp; &lt; 25</b>

\* Base-wide - must be less than 10.0 tons per year for single HAP or 25 tons per year for total HAPs

**CORRECTED 1995 INVENTORY ESTIMATED ACTUAL ANNUAL EMISSIONS**

<b>Emission Source Group</b>	<b>PM<sub>10</sub></b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>2</sub></b>	<b>VOC</b>	<b>HAPS</b>
Boilers, Furnaces, HW heaters	1.35	4.49	11.24	0.07	0.82	0.13
Generators	0.24	1.12	5.16	0.22	0.29	0.04
Incinerators	0.16	0.22	0.06	0.06	0.06	0.00
Engine Testing	0.01	0.34	0.07	0.07	0.22	0.07
Storage Tanks					6.88	0.23
Refueling					29.53	2.72
Vehicle Maintenance	0.00	0.64	0.01	0.0	0.08	0.08
Operational Shops					26.44	4.96
<b>TOTALS</b>	<b>1.76</b>	<b>6.81</b>	<b>16.54</b>	<b>0.42</b>	<b>64.32</b>	<b>8.23</b>